# Type I and II Ground Disturbing Categorical Exclusion Action Classification Form

STIP Project No.	B-5534
WBS Element	55034.1.1
Federal Project No.	

### A. <u>Project Description</u>:

Project B-5534 proposes to replace Bridge No. 300082, which carries NC 11/111 over Burnt Coat Creek. The project proposes to construct a new bridge with two 12-foot travel lanes and 8-foot paved shoulders immediately to the north of the existing structure. Traffic will be maintained on the existing bridge during construction. Following construction, the existing bridge would be removed. The proposed design and environmental features along the corridor are shown on Figure 2.

The area surrounding the bridge is rural. Undeveloped forestland is in the immediate vicinity of the bridge and farms are located around the area. NC 11/111 is an important connection in eastern Duplin County, carrying buses, farm equipment, and other industrial traffic. If this crossing were to be closed during construction, the detour route would be approximately 6 miles.

Current cost estimates for the selected alternative are as follows:

Total	\$3.142.500
Construction	\$3,050,000
Utility Estimates	\$77,000
Right-of-Way	\$15,500

### B. <u>Description of Need and Purpose:</u>

The purpose of the proposed project is to replace a structurally deficient bridge. Bridge No. 300082 has a sufficiency rating of 13.44 out of 100. Additionally, the most recent bridge inspection rated the substructure a 3 out of 9. Being structurally deficient does not mean that the bridge is unsafe, but does mean the bridge is in need of repair or replacement. As a bridge ages, the cost of repairs and continued maintenance necessitates the need for replacement. The current bridge was constructed in 1950, and is nearing the end of its useful life.

### C. <u>Categorical Exclusion Action Classification:</u> (Check one)

### D. Proposed Improvements

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings, if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

1

### E. Special Project Information:

This portion of NC 11/111 is a two-lane undivided roadway that provides connectivity between Kenansville, the Duplin County seat, to the west and Pink Hill to the east. The posted speed limit is 55 mph.

### **Environmental Commitments**

The list of project commitments (green sheet) is located at the end of the checklist.

### Traffic

Current (2020): 6,100 vehicles per day 7,600 vehicles per day

TTST: 8% Duals: 3%

### **Design Exceptions**

There are no anticipated design exceptions for this project.

### Anticipated Permit or Consultation Requirements

A General Permit 31 from the U.S. Army Corps of Engineers (USACE) and corresponding Section 401 Water Quality Certification (WQC) from the North Carolina Division of Water Resources (NCDWR) are anticipated. However, due to the level of potential impacts, an Individual Section 404 Permit and Section 401 WQC may be warranted. Permitting decisions are at the discretion of the USACE and NCDWR.

#### Bridge Demolition

The existing bridge is made of concrete and steel and therefore, it should be possible to remove with no debris falling to the water below.

### Jurisdictional Features

Water resources in the study area are part of the Cape Fear River basin (HUC 03030007), which is not subject to riparian buffer rules administered by the NCDWR. One jurisdictional stream and two jurisdictional wetlands were identified within the study area, described in detail in the *Natural Resources Technical Report* (Ecological Engineering, July 2015). No waters classified as Outstanding Resource Waters (ORW), High Quality Waters (HQW), or Water Supplies (WS-I: undeveloped watersheds or WS-II: predominately undeveloped watersheds) occur within one mile of the study area. Burnt Coat Creek is not listed on the North Carolina 2016 Final 303(d) list of impaired waters. No waters in the project area are designated as a National Wild and Scenic River. There are no designated anadromous fish waters or Primary Nursery Areas present in the study area.

#### Protected Species

Two threatened or endangered federally protected species are listed for Duplin County by the United States Fish and Wildlife Service (USFWS) (updated October 4, 2018): American alligator (*Alligator mississippiensis*) and red-cockaded woodpecker (*Picoides borealis*). The American alligator is threatened due to similarity of appearance; therefore, a biological conclusion is not required. Due to a lack of suitable habitat, a biological conclusion of No Effect was determined for red-cockaded woodpecker.

In accordance with the Bald and Golden Eagle Protection Act, a desktop-GIS assessment of the project study area, as well as the area within a 1.13-mile radius (1.0 mile plus 660 feet) of the project limits, was performed on July 6, 2015 using 2010 color aerials. No water bodies large enough or sufficiently open to be considered potential feeding sources were identified. Since there was no foraging habitat within the review area, a survey of the project study area and the area within 660 feet of the project limits was not conducted. Additionally, a review of the NCNHP database on July 6, 2015 revealed no known occurrences of this species within 1.13 miles of the project study area. Due to the lack of habitat, known occurrences, and minimal impact anticipated for this project, it has been determined that this project will not affect this species.

### Floodplains

Bridge 82 crosses the Burnt Coat Creek 100-year floodplain. The project is anticipated to require a Memorandum of Agreement type 2d, which allows a change in base flood elevation greater than 0.1 feet but less than 0.5 feet.

### Hazardous Materials

The NCDOT GeoEnvironmental Section performed a records search for the study area and no sites with hazardous materials are anticipated to be impacted.

### Cultural Resources

The Gaston Kornegay property is located on the western edge of the study area and is determined eligible for the National Register of Historic Places. The State Historic Preservation Office (SHPO) determined that there were no effects to the property due to this project. It was determined that no archaeological survey is required for this project.

### Alternatives

Three alternatives were examined during project development. Alternative 1 proposed replacing the existing bridge in place, utilizing an off-site detour. B.F. Grady Elementary School and several industrial and farm sites are located near the project area, and numerous school buses and large vehicles utilize this bridge crossing daily. The off-site detour would include secondary routes, which would not be adequate to carry the primary route traffic currently using NC 11/111. These factors led to the decision not to carry Alternative 1 forward. Alternative 2 proposed to construct a new bridge north of the existing structure. Alternative 3 proposed to construct a new bridge south of the existing structure. A comparison of alternatives is included below in **Table 1**. The project team selected Alternative 2 as their preferred alternative to carry forward into final design because of anticipated costs and impacts.

**Table 1. Alternatives Comparison** 

Alternative	Alternative 1	Alternative 2	Alternative 3
Description	Replace In- Place	Replace on New Location to the North	Replace on New Location to the South
Detour	Off-Site Detour	On-Site Detour	On-Site Detour
Wetland Impacts (acres)*	0	1.5	1.5
Stream Impacts (linear feet)*	0	0	70
Costs			
Construction Cost	N/A	\$3,050,000	\$4,350,000
Utilities	N/A	\$77,000	\$86,000
Right-of-Way	N/A	\$15,500	\$9,750
Total Cost	N/A	\$3,142,500	\$4,445,750

<sup>\*</sup>Permanent impacts based on 25-foot buffer from slope stakes

Replacing the bridge in place by utilizing a temporary on-site detour was considered but ultimately not carried forward due to the potential for wetland impacts, increased cost, and construction time. Due to the soil and wetland type, it is possible for the soil to compact from the temporary fill, causing impacts to the wetland.

In an effort to minimize wetland impacts, roadway slope-stakes were reduced to from 2:1 slopes to 1.5:1 slopes. As a result, impacts to wetlands have been reduced to 0.98 acres pending utility relocations.

N/A – Not Available (costs for the Replace In-Place alternative were not calculated)

### F. Project Impact Criteria Checklists:

Type I &	I - Ground Disturbing Actions					
FHWA AI	FHWA APPROVAL ACTIVITIES THRESHOLD CRITERIA					
If any of o	questions 1-7 are marked "yes" then the CE will require FHWA approval.	Yes	No			
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?		$\boxtimes$			
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?		$\boxtimes$			
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?		$\boxtimes$			
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?		$\boxtimes$			
5	Does the project involve a residential or commercial displacement, or a substantial amount of right of way acquisition?		$\boxtimes$			
6	Does the project require an Individual Section 4(f) approval?		$\boxtimes$			
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?					
If any of questions 8 through 31 are marked "yes" then additional information will be required for those questions in Section G.						
Other Considerations Yes No						
8	Does the project result in a finding of "may affect not likely to adversely affect" for listed species, or designated critical habitat under Section 7 of the Endangered Species Act (ESA)?		$\boxtimes$			
9	Is the project located in anadromous fish spawning waters?		$\boxtimes$			
Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?			$\boxtimes$			
11	Does the project impact waters of the United States in any of the designated mountain trout streams?		$\boxtimes$			
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	$\boxtimes$				
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?		$\boxtimes$			
14	Does the project include a Section 106 of the NHPA effects determination other than a no effect, including archaeological remains?		$\boxtimes$			

Other C	onsiderations (continued)	Yes	No
15	Does the project involve hazardous materials and/or landfills?		$\boxtimes$
16	Does the project require work encroaching and adversely affecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?		$\boxtimes$
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?		$\boxtimes$
18	Does the project require a U.S. Coast Guard (USCG) permit?		$\boxtimes$
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?		$\boxtimes$
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?		$\boxtimes$
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?		$\boxtimes$
22	Does the project involve any changes in access control?		$\boxtimes$
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?		$\boxtimes$
24	Will maintenance of traffic cause substantial disruption?		$\boxtimes$
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?		$\boxtimes$
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?		$\boxtimes$
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?		$\boxtimes$
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?		$\boxtimes$
29	Is the project considered a Type I under the NCDOT's Noise Policy?		$\boxtimes$
30	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?		$\boxtimes$
31	Are there other issues that arose during the project development process that affected the project decision?		$\boxtimes$

### G. Additional Documentation as Required from Section F

### **Question 1**

The USFWS has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is

"May Affect, Likely to Adversely Affect." The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Duplin County, where B-5534 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020.

#### **Question 12**

Two jurisdictional wetlands were identified in the study area. The proposed project is anticipated to impact 1.5 acres of wetland, calculated using the 25% design slope stake limits plus 25 feet. Exact impact acreages, including required extent of fill placement, will be determined during final design. No linear feet of stream impacts are anticipated. While total impacts may exceed the threshold for an Individual Permit, it would be up to the discretion of the USACE.

### H. <u>Project Commitments</u>

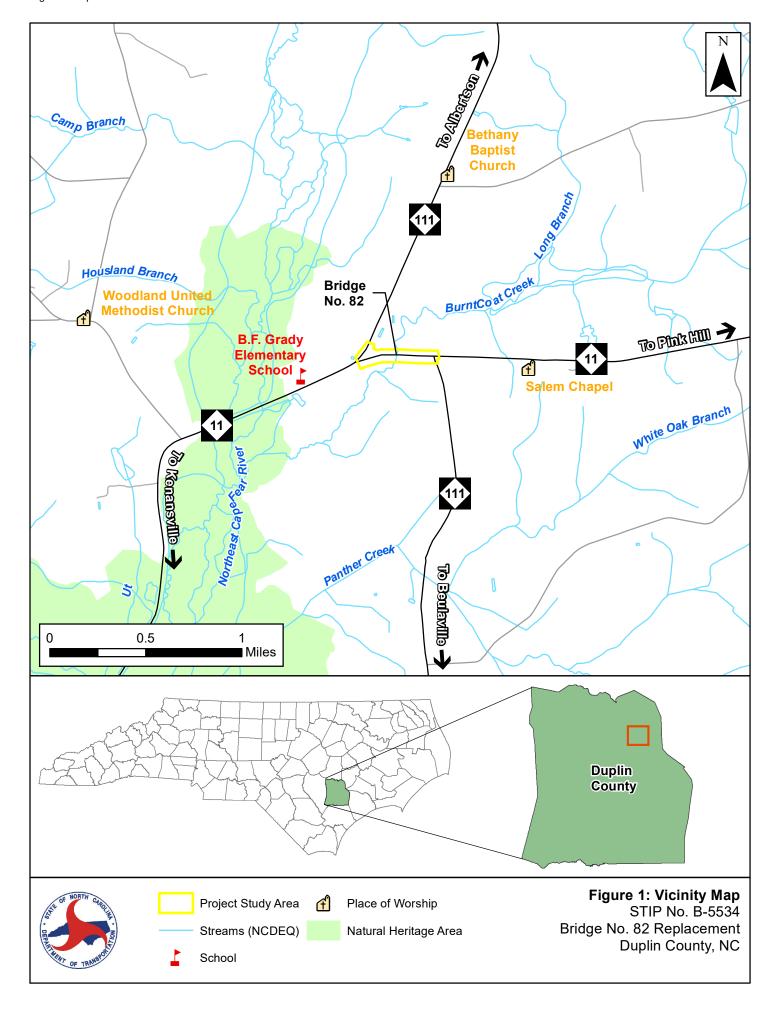
Duplin County
Bridge No. 300082 Replacement
Federal Project No.
WBS No. 55034.1.1
TIP No. B-5534

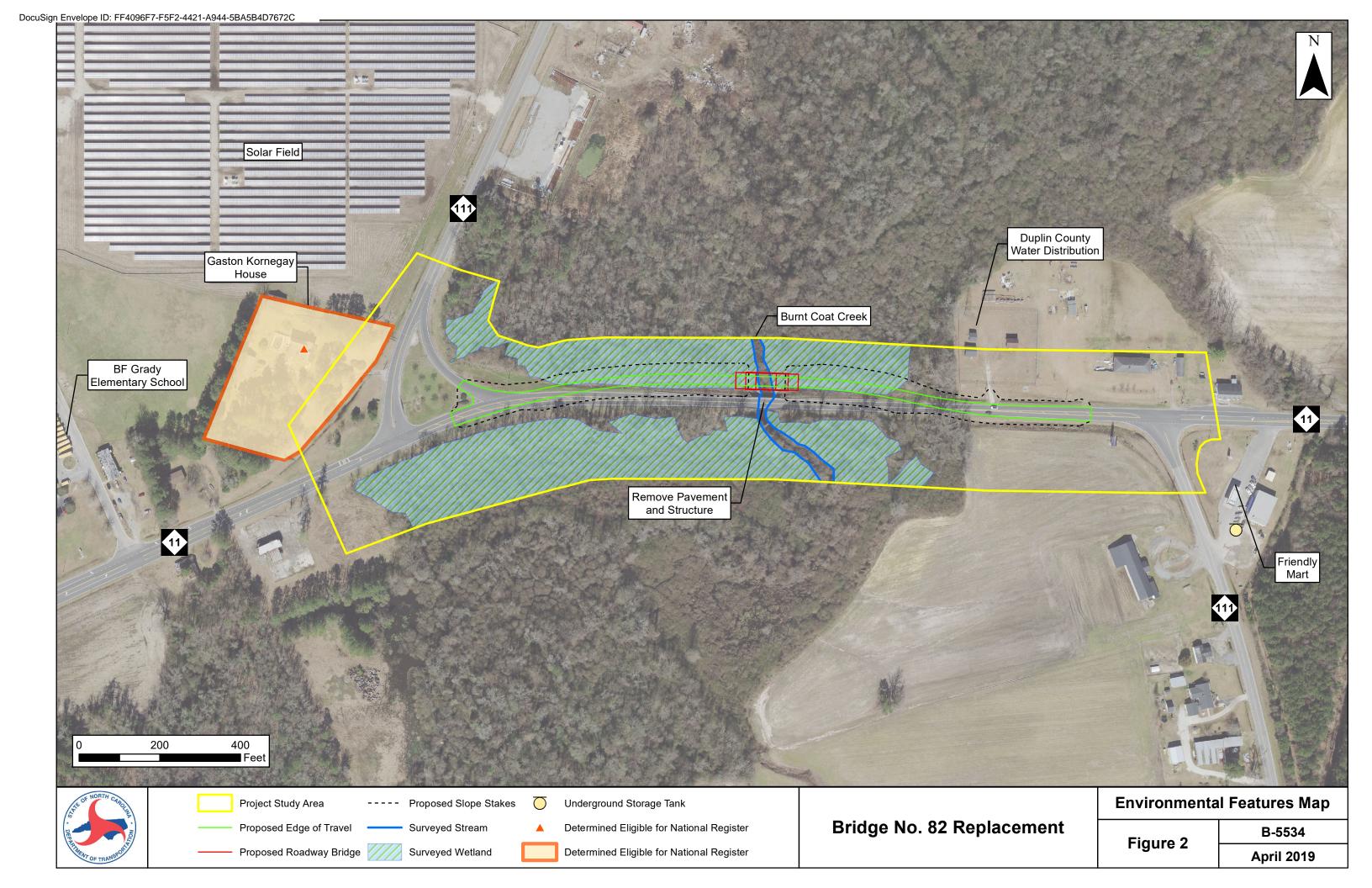
### **NCDOT Hydraulics Unit**

The NCDOT Hydraulics Unit will coordinate with the North Carolina Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to the applicability of NCDOT's Memorandum of Agreement with the FMP or approval of a conditional Letter of Map revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

### I. <u>Categorical Exclusion Approval</u>

STIP Project N	lo. <b>B-5534</b>		
WBS Element	55034.1.1		
Federal Projec	t No.		
<b>Prepared By:</b> 7/18/2019	DocuSigned by: Jeresa Gresham		
Date	Teresa Gresham, P.E. Kimley-Horn & Associates, Inc.		
Prepared For:	North Carolina Department of Transportation		
Reviewed By:	DocuSigned by:		
7/30/2019	Phil Harris		
Date	Philip Harris III, P.E., Environmental Analysis Unit Head North Carolina Department of Transportation		
⊠ Approv	If all of the threshold questions (1 through 7) of Section F are answered "no," NCDOT approves this Categorical Exclusion.		
☐ Certifie	If any of the threshold questions (1 through 7) of Section F are answered "yes," NCDOT certifies this Categorical Exclusion.		
7/18/2019	Docusigned by:  Kerin Fischer		
Date	Kevin Fischer, P.E., Structures Management Unit North Carolina Department of Transportation		
FHWA Approved	: For Projects Certified by NCDOT (above), FHWA signature required.		
Date  John F. Sullivan, III, PE, Division Administrator Federal Highway Administration			





15-01-0004



### HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	B-5534	County:	Duplin
WBS No.:	55034.1.1	Document Type:	. 1
Fed. Aid No:		Funding:	X State Federal
Federal Permit(s):	X Yes No	Permit Type(s):	USACE
Project Descript	<i>ion</i> : Replace Bridge Nod in review request).		er Burnt Coat Creek (no off-site

### SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

	There are no National Register-listed or Study Listed properties within the project's area of
	potential effects.
	There are no properties less than fifty years old which are considered to meet Criteria
	Consideration G within the project's area of potential effects.
	There are no properties within the project's area of potential effects.
	There are properties over fifty years old within the area of potential effects, but they do not
	meet the criteria for listing on the National Register.
X	There are no historic properties present or <b>affected</b> by this project. (Attach any notes or
	documents as needed.)

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 20 January 2015 and 8 February 2019 and yielded one DE/SL and no NR, LD, or SS properties in the Area of Potential Effects (APE). The APE for historic architectural resources equates with the study area provided in a February 2019 request (see attached). Duplin County current GIS mapping, aerial photography, and tax information revealed an APE of mostly woodland and cultivated fields with several above-ground resources dating from the 1920s to the 1990s (viewed 20 January 2015 and 8 February 2019). The Gaston Kornegay House (DP0154) (PIN: 345700182084), located at the western end of the study area, is determined eligible for listing in the National Register; three other pre-1970s resources are unexceptional examples of their types. Constructed in 1922, Bridge No. 82 is not eligible for the National Register according to the NCDOT Historic Bridge Survey as it is neither aesthetically nor technologically significant. Google Maps and related visuals confirmed the placement of all resources relative to the proposed construction (viewed 20 January 2015 and 8 February 2019).

An "effects required" review form, dated 27 January 2015, documented the requirement for an effects consultation, awaiting full development of the project design. Review of the current design plans revealed that no construction activities will occur on or near the Gaston Kornegay

House property. Therefore, a finding of "no historic properties affected" will satisfy GS 121-12(a) and Section 106 compliance requirements.

Should any aspect of the project design change, please notify NCDOT Historic Architecture as additional review may be necessary.

	SUPPOR	T DOCUME	NTATION	
X Map(s)	Previous Survey Info.		Correspondence	X Design Plans
	FINDING BY NCDO	Γ ARCHITE	CTURAL HISTORIAN	1
Historic Arc	chitecture and Landscapes – NO	HISTORIC PH	ROPERTIES PRESENT OR A	AFFECTED
Vanes	sa druck		4 March 20	0/9
NCDOT Are	chitectural Historian		Date	

Bridge No. 82 Replacement, Duplin County WBS No. 55031.1.1
Tracking No. 15-01-0004

15-01-0004

REVISED 4/30/2019



### NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



### PROJECT INFORMATION

Project No:	B-5534		County:	Duplin	
WBS No:	5534.1.1		Document:	MCC	
F.A. No:			Funding:	State	☐ Federal
Federal Permit I	Required?	⊠ Yes	☐ No Permi	t Type: usace	<b>.</b>

**Project Description:** NOTE, THIS IS A REVISED FORM AND REPLACES THE SURVEY REQUIRED FORM DATED 3/17/2015. NCDOT proposes to replace the circa 1920s Bridge No. 82 over Burnt Coal Creek on NC 111 in Duplin County. The proposed replacement will be north and adjacent to the existing structure. The project length is 0.33 miles, or about 1800 feet in length. New ROW and easements will be necessary on the north side of existing NC 111 with most impacts forcused near the bridge and water crossing. For purposes of this revised review, the archaeological Area of Potential Effects (APE) is 1800 feet long and 175 feet wide and is based on the preliminary plans. Little if any work will occur on the south side of the APE along NC 111 where plans call for removal of the pavement and limited earthwork. This is a state funded undertaking that will require USACE permitting, therefore Section 106 of the National Historic Preservation Act applies for archaeological review.

Previously, the APE was larger and also considered more alternatives including a new structure south of Bridge No. 82. Since archaeological site 31Dp185 was mapped near the southeastern limites of the project area, an archaeological assessment was required. Because impacts are no longer expected near the site location, an archaeological survey is longer required.

#### SUMMARY OF CULTURAL RESOURCES REVIEW

#### Brief description of review activities, results of review, and conclusions:

Aerial mapping of the project location depicts a wooded and mixed undeveloped and lightly developed land, mainly residential and agricultural, near Bridge No. 0082. No doubt construction of the existing bridge and highway has altered the topography and may have disturbed the context for bearing significant archaeological sites. Duplin County GIS mapping shows much of the area immediately sorrounding the bridge as being included in a general, unofficial "flood zone," and virtual driveby viewing showed standing water adjacent to the road at certain locations.

The Office of State Archaeology was visited to determine if there were any known archaeological sites or otherwise previous archaeological surveys in or nearby the project area. NCDOT conducted an archaeological survey in 1990 for NC Highway 11 that identified several archaeological sites in the high ground east of Burn Coat Creek (Padgett 1990), one of which was within the original Area of Potential Effects (prior to revision) as then defined by the project Study Area. Of several sites recorded east of Burnt Coat Creek on higher ground, notably outside of the "flood zone" noted on Duplin County's GIS site, site 31Dp185 had been noted as being within the older APE and had recommended for additional investigation, though no falls outside of the APE and limited new groundbreaking will occur on the high ground on the eastern third of the project. A low density site for artifacts, the Native American site contained 21 artifacts including one prehistoric ceramic fragment and was described as perhaps crossing NC 11, also in the APE. At the time of the survey, the location was considered too wet for subsurface testing. As the site was avoided for that project, testing on 31Dp185 did not occur (though additional field research eventually did

15-01-0004

move forward on two other sites affected by the project). The site will be avoided again by this project and therefore requires no additional study for this undertaking.

The bridge to be replaced is in a rural setting. USGS mapping (Albertson) and aerial photography was studied (see Figures 1 and 2). Google streetview and GoogleEarth aerial timeline tools were available at this location and used, considtion at the APE. Since the early 1990s a gas station has been constructed past the eastern limits of the project. More importantly, a Duplin County water or sewage station had been costructed on the first elevated ground northeast of the bridge to be replaced. Perhaps because of this municipal operation, the right of way and project construction avoids impacts to this landform and beyond heading uphill, where some potential for additional archaeological materials would otherwise remain. It is noted that the margins along NC 111 here are cut back, compromising the archaeological integrity of the APE margins at this location.

According to USGS mapping and GIS resources (data layer created by NCDOT archaeologist Paul J. Mohler), no cemetery is present at the APE or immediately nearby.

As noted in the original and now replaced survey required form for archaeology (3/17/2015), other reviews in the immediate area include one for Burnt Coal Creek, which wasn't recommended for a survey, and a nearby solar farm further northwest of the project.

## Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

Updated project information included new designs for a replacement immediately north of the existing NC 111 and Bridge No. 82 facility. Very little to no new groundbreaking will occur on the south side of the APE, south of NC 111, therefore a known archaeological site, 31Dp185, southeast of the bridge will be avoided and no longer requires a revisit. There are no known archaeological resources present within the APE. For archaeological review, this federally permitted undertaking should be considered compliant with Section 106. This review replaced the previous call for an archaeological survey dated 3/17/2015.

SUPPORT DOCUMENTATION						
See attached:	<ul><li></li></ul>	Previous Survey Info ounty Survey Notes	Photos Other:	Correspondence		
FINDING BY NCDOT ARCHAEOLOGIST						
NO ARCHAEOLOGY SURVEY REQUIRED						
Bural.	Out	_		4/29/2019		
NCDOT ARCH	HAEOLOGIST			Date		